

AMENDMENTS TO THE DRAWINGS:

Please replace figure 1 with the new figure 1 included in the Appendix to this amendment labeled “Replacement Sheet”. Amended figure 1 is labeled “Prior Art”, as suggested by the Examiner.

REMARKS

Claims 1-16 are pending after this amendment adds new claims 15-16. Claims 7, 9, and 14 have been withdrawn in response to a Restriction requirement. Claims 4 and 5 have been amended to correct typographic errors. The amendments and new claims do not add new matter. In particular, the new claims find support throughout the specification and figures and specifically in figure 1 and the specification at page 1, lines 19-24 and page 11, lines 6-12.

The Office Action acknowledges receipt of the priority documentation but alleges that the declaration does not properly claim priority. Though Applicants respectfully disagree, noting that the “no” on the declaration is obliterated by several “x”’s in order to indicate that the “yes” that remains applies, Applicants will submit a new declaration.

The drawings have been amended in accordance with the Examiner’s suggestion by indicating that figure 1 illustrates the prior art. A replacement sheet accompanies this amendment.

Claims 1-5, 8 and 10-13 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0077515 to Chen.

Claim 1 recites an electrode for an electrochemical cell in which an active material in an electrode material is a proton-conducting compound. In claim 1, the electrode material includes a nitrogen-containing heterocyclic compound or a polymer having a unit containing a nitrogen-containing heterocyclic moiety.

According to the Examiner, “the use of either aniline or pyrrole in both electrodes would result in a cell wherein only protons act as charge carriers in a redox reaction associated with charge and discharge. (Office Action, page 4, lines 4-6). Applicants respectfully disagree, and note that Chen actually teaches away from an electrode

material being a proton-conducting compound by stating that “[t]he present invention provides a method for the production of an **electronically** conducting polymer composite material” (Chen; page 2, para. 14; emphasis added). Furthermore, “[e]lectronically conductive polymers conduct by **electron** flow” (Chen; page 2, para. 17; emphasis added). Therefore, not only does Chen not discuss, or even suggest, a proton-conducting compound in an electrode material, Chen teaches away from a proton-conducting compound in the context of an electrochemical cell by indicating that the electrochemical polymer apparently discussed therein operates via electronic conduction. Since Chen does not identically disclose, or even suggest, a proton-conducting compound in an electrode material, it is respectfully submitted that claim 1 is allowable over the cited reference.

Claims 2-5, 8, and 10 depend from claim 1 and are therefore allowable for at least the same reasons as claim 1 is allowable.

Additionally, regarding claim 3, which recites that only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge, it is respectfully submitted that Chen discloses electron flow, Chen does not disclose, or even suggest, only protons acting as a charge carrier. Therefore, for at least this additional reason, Applicants submit that claim 3 is allowable over the cited reference.

Regarding claim 11, which recites an electrochemical cell in which at least one of the electrodes is the electrode as claimed in Claim 1, and in which both electrodes comprise a proton-conducting compound as an active material, it is respectfully submitted that Chen does not identically disclose these features. In particular, as discussed above, Chen does not disclose, or even suggest, a proton-conducting compound as the active material, but rather apparently discloses **electronic** charge carriers.

Furthermore, since the electrochemical cell of claim 11 includes the electrode of claim 1, claim 11 is allowable for at least the same reasons as claim 1 is allowable.

Claim 12 depends from claim 11 and is therefore allowable for at least the same reasons as claim 11 is allowable. Additionally, claim 12 recites that only protons act as a charge carrier in a redox reaction in both electrodes associated with charge and discharge. As discussed above in regard to claim 3, which recites a similar feature, it is respectfully submitted that Chen discloses electron flow and does not disclose, or even suggest, only protons acting as a charge carrier. Therefore, for at least this additional reason, Applicants submit that claim 12 is allowable over the cited reference.

Regarding claim 13, it is respectfully submitted that, since the secondary battery of claim 13 includes the electrochemical cell of claim 11, claim 13 is allowable for at least the same reasons as claim 11 is allowable.

New claims 15 and 16 depend from claim 1 and are therefore allowable for at least the same reasons as claim 1 is allowable. Additionally, it is respectfully submitted that the features of claim 15, which recites a cell electrode in which the active material in the electrode material forms a positive current collector, and in which the positive current collector is separated from a negative electrode by a separator, are not disclosed, or even suggested by the cited reference. Therefore it is respectfully submitted that claim 15 is allowable for at least this additional reason.

Likewise, it is respectfully submitted that the features of claim 16, which recites a cell electrode in which the electrochemical cell includes an electrolyte containing a proton source, and in which only adsorption and desorption of protons in the electrode active material can be involved in electron transfer in a redox reaction in both electrodes associated with charge and discharge, are not disclosed, or even suggested by the cited

reference. Therefore it is respectfully submitted that claim 16 is allowable for at least this additional reason.

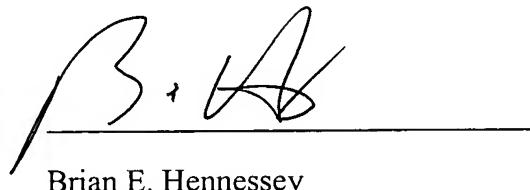
CONCLUSION

In view of the above amendments and remarks, it is believed that independent claim 1 is in condition for allowance, as well as those claims dependent therefrom. Passage of this case to allowance is therefore earnestly solicited.

However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper, not fully covered by an enclosed check, may be charged on Deposit Account 50-1290.

Respectfully submitted,



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